

Math (Science)	Group-I (Objective Type)	Paper Max Marks: 15
Time: 20 Minutes		

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark for that question.

1-1- What should be added to complete the square of  $x^4 + 64$ :

- (a)  $8x^2$
- (b)  $-8x^2$
- (c)  $16x^2$  ✓
- (d)  $4x^2$

2- Which order pair satisfy the equation  $y = 2x$ :

- (a) (1, 2) ✓
- (b) (2, 1)
- (c) (2, 2)
- (d) (1, 1)

3- In a parallelogram, opposite sides are ---- .

- (a) Parallel ✓
- (b) Concurrent
- (c) Congruent
- (d) None of these

4- The medians of a triangle cut each other in the ratio ---- .

- (a) 4 : 1
- (b) 3 : 1
- (c) 2 : 1 ✓
- (d) 1 : 1

5- The right bisectors of the sides of a triangle are ---- .

- (a) Congruent
- (b) Concurrent ✓
- (c) Parallel
- (d) None of these

6- Imaginary part of  $-i(3i + 2)$  is ---- .

- (a) -2 ✓
- (b) 2
- (c) 3
- (d) -3

7-  $\log e = \dots$ , where  $e \approx 2.718$  .

- (a) 0
- (b) 1
- (c) 0.4343 ✓
- (d)  $\infty$

8- Factors of  $3x^2 - x - 2$  are ----.

- (a)  $(x + 1)(3x - 2)$    (b)  $(x + 1)(3x + 2)$   
(c)  $(x - 1)(3x - 2)$    (d)  $(x - 1)(3x + 2)$  ✓

9- Distance between the points  $(1, 0)$  and  $(0, 1)$  is:



10- Unit of ratio is ---- .

- (a) Second      (b) Meter  
(c) Kilogram      (d) No unit ✓

## 11- The symbol used for “line” :

- (a)  $\overline{AB}$       (b)  $|AB|$   
 (c)  $\overleftrightarrow{AB}$       (d)  $\overrightarrow{AB}$

**12- Write  $\sqrt[7]{x}$  in exponential form:**

- (a)  $x^{1/7}$  ✓      (b)  $x$   
 (c)  $x^7$       (d)  $x^{7/2}$

13- A triangle ---- is the union of a triangle and its interior.

- (a) Region ✓      (b) Interior  
(c) Exterior      (d) Area

14-  $(3 + \sqrt{2})(3 - \sqrt{2})$  is equal to:

- (a) 7 ✓      (b) -7  
(c) -1      (d) 1

15-  $x = \text{----}$  is a solution of the inequality  $-2 < x < \frac{3}{2}$ .